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TRAPPING DUCKS FOR BANDING

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INTRODUCTION

A most interesting field of study and investigation is presented to those who can give a portion of their time to banding migratory waterfowl,[1] and it is the more attractive not only from the fact that these birds are of relatively great importance, but also because there is assurance of an early solution of some of their migration and life-history problems, because of the many "returns" sure to be received. Return records of waterfowl almost always come from dead birds, in contrast to the numerous returns that may result from a single individual of the nongame species through the continuous operation of a small-bird trapping station. This, however, is largely offset by the greater proportion of returns from the birds hunted for sport, which, during the first season, may equal 15 to 25 per cent of the total number banded. With the systematic trapping of birds of these groups at a large number of stations, the number of returns obtained will, of course, be correspondingly increased. These stations will be particularly valuable during the spring migration, since the Federal law protecting migratory birds has abolished spring

[1] The banding of migratory waterfowl in North America is done under special permit issued by the Bureau of Biological Survey, U. S. Department of Agriculture, Washington, D. C., or (for Canada) the Commissioner of Canadian National Parks, Department of the Interior, Ottawa, Ontario. State permits also are usually required. All persons are warned that the use of any equipment described herein, without proper permits, will be a violation of the Federal law protecting migratory birds, and also of the laws of the several States.

shooting. During this period carefully operated trapping stations may be expected to supply many of the data, and there are no more ideal sites for such stations than duck clubs having resident superintendents.

With these facts in mind, it is important to determine the best methods of obtaining waterfowl for banding. In the following pages traps that have been successfully used are described in detail.

Traps for waterfowl, as for land species, are both automatic and nonautomatic. The automatic traps secure the birds without the presence of the operator; whereas the nonautomatic types are more or less under continuous observation and are manipulated by a watcher from a point of concealment, or "blind."

Thus far the surface-feeding or river ducks (Anatinae) have received more attention than have those which, obtaining their food by deep diving, are known as deep-water or sea ducks (Fuligulinae). In consequence, virtually all the traps here described have been

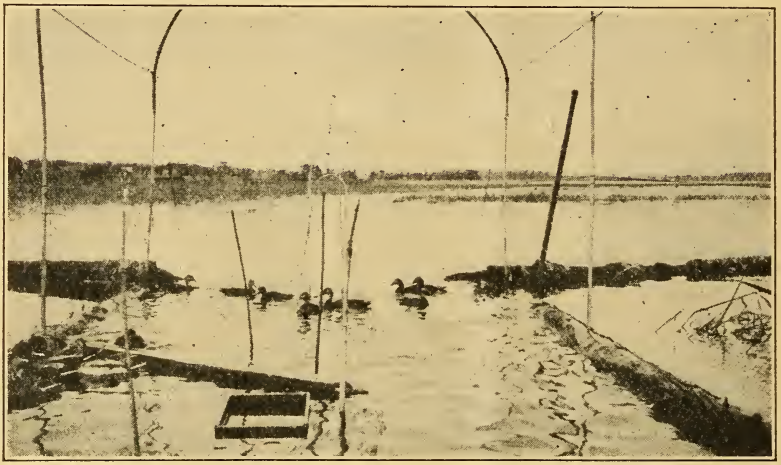

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FIG. 1.—Raft trap used at the station of H. S. Osler at Lake Scugog, Ontario. Photograph, by Mr. Osler, taken from one end looking lengthwise through the trap chamber, showing one entrance with its door, the decoy pen, and several captured black ducks

developed for use with shoal-water ducks. It is important that this discrimination be overcome as soon as possible, for there is as much or even more to be learned regarding the migrations and habits of the diving ducks.

AUTOMATIC TRAPS

When traps can be visited regularly, the automatic kinds are preferred. This is particularly true when ducks are feeding at night, as is generally the case when the moon is full.

The principle of most automatic traps is that of "confusion," effected either by obstructing wings or by an adaptation of the funnel, a device very widely used and successfully employed in the Government sparrow trap.[2]

[2] This trap is described in Miscel. Circ. No. 18, of the U. S. Department of Agriculture, "Instructions for Banding Birds."

RAFT TRAP

The first raft trap that came to the attention of the Biological Survey was developed and used at Lake Scugog, Ontario, by H. S. Osler, of Toronto, Ontario. (Figs. 1 and 2.) This trap is about 36 feet long, 12 feet wide, and high enough to give the operator room to stand erect

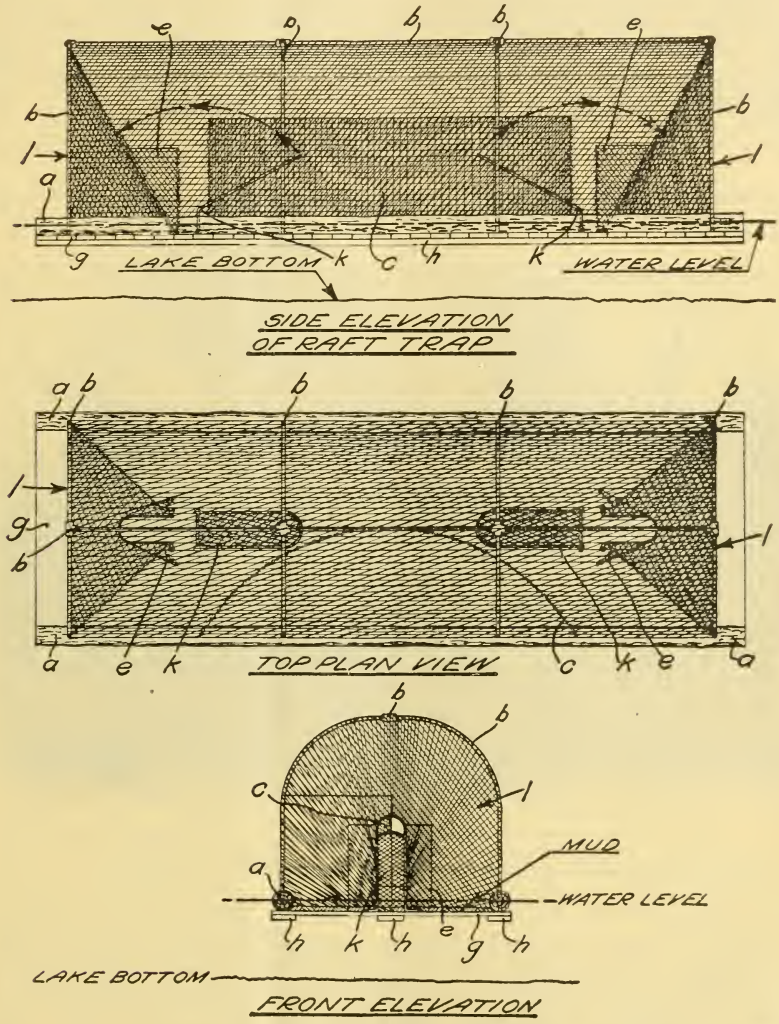

FIG. 2.—Details of raft trap. The framework of galvanized-iron pipe (*b*) is secured to the raft made by bolting planks (*g*, *h*) to two 40-foot logs (*a*). The funnels (*l*) terminate in entrances that may be closed by doors (*k*) hinged to the raft or platform. Short deflecting wings (*c*) will turn captured birds away from the entrance. A semicircular pen (*e*) confines a few live decoys

while collecting captured birds. It is made of ordinary hexagonal, 2-inch mesh, galvanized poultry wire stretched over a framework of galvanized-iron pipe (*b*) secured to a raft made by bolting planks (*g*, *h*) to two 40-foot cedar logs (*a*). Two funnel-shaped entrances (*l*) are provided, one at each end, and each is fitted with short wings

(*e*) which serve to deflect any captured birds that try to go out the way they came in. The large openings permit unobstructed entrance. During the operation of removing the birds, they are closed by doors (*k*) hinged to the bottom. Inside the trap, on one side, is a semicircular pen (*c*) for confining a few live decoys.

This rather elaborate trap is towed into position in a natural feeding ground and submerged by piling mud on the floor. Being mounted on a movable platform this apparatus may be towed to any point where ducks are known to be congregating, a feature of obvious importance when operations are over a large feeding area. The main disadvantage is in the expense of construction.

WATERLILY-LEAF TRAP

Another trap of the funnel type, termed "the waterlily-leaf trap" (figs. 3 and 4), was developed by the writer during field work in

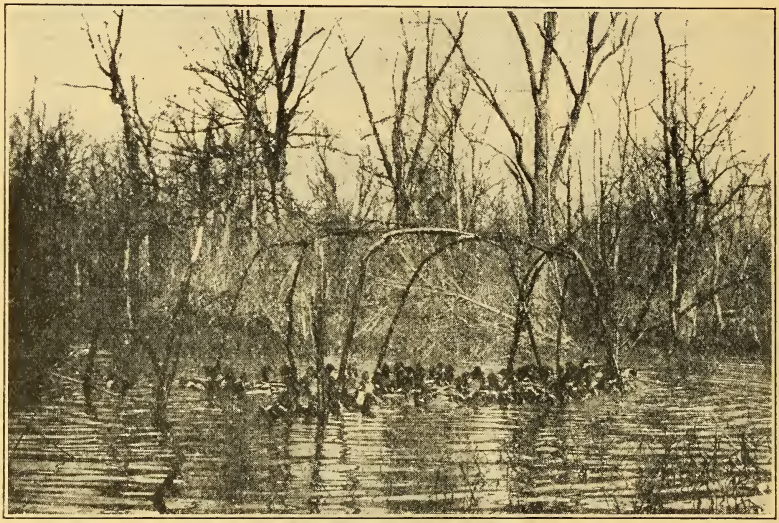

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FIG. 3.—Waterlily-leaf trap operated on the grounds of the Sanganois Club in the marshes of the Illinois River, near Browning, Ill. When the photograph was taken there were about 100 mallards, black ducks, and pintails in the trap

the marshes of the Illinois River in March, 1922. Two traps were used at that time and five others in the ensuing fall. Exceptionally fine results were obtained, the total catch being about 2,000 mallards, black ducks, pintails, and wood ducks. These traps are readily constructed at slight expense in a region where light saplings of willow or cottonwood are available.

Nine saplings 10 or 12 feet long are cut and set firmly in the mud, forming an outline roughly similar to a waterlily leaf or a deeply indented heart. (Fig. 4.) About 4 feet above the water the poles are bent in sharply toward the center and their ends firmly wired together. This forms the framework similar to that of the hut dwellings used by some of the Indian tribes of the Southwest. The two poles that form the indentation or funnel should be about 1½ or 2 feet apart. From these points the wire netting is continued

toward the center of the trap until the two ends are not more than 4 or 5 inches apart. If necessary, these portions of the netting may be stiffened by weaving light willows through the meshes and forcing them deep into the mud. The ends are then laced together to within a foot of the water, the opening being reinforced by an inverted U-shaped piece of stiff, heavy wire. A good size for a trap of this kind is about 5 feet in diameter, so that a piece of wire netting 18 or 19 feet long will make the circuit. Two short pieces are usually required to complete the top covering.

By working out the mud, captured ducks will soon deepen the water in the trap chamber so that they can escape by diving under the netting, unless this is staked down securely. Forked stakes should be driven deep into the mud, carrying the lower edge of the

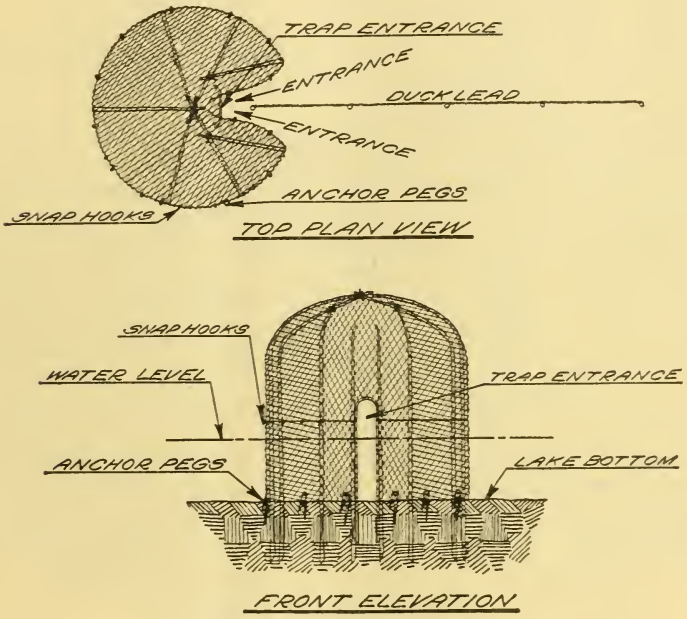

FIG. 4.—Details of waterlily-leaf trap

netting with them. The stakes should be fairly close together to give the necessary strength, as the rushes of the birds will put the entire structure to a severe strain.

For convenience in removing captured ducks it is preferable to have the back of the trap chamber on a bank and the opening in water about 8 or 10 inches deep. The entire trap, however, may be constructed in water up to 2 feet deep, but in any case the operator must be prepared for a wetting when he enters the trap chamber. An oilskin jacket and trousers, the latter left outside of hip boots, are necessary parts of his equipment.

Entrance for the operator may be gained through one side, between the lower course of wire netting and one of the pieces that form the top. These pieces should be securely wired together at all points except on the side, where small harness snaps should be used instead

of wire. A "lead" or fence of wire netting for guiding the feeding birds toward the trap runs from the center of the funnel far out in the area in front of the trap. The single "lead" is fully as effective as two widely diverging. Captured birds will concentrate either in the back of the trap or in the pockets at the sides of the funnels, and only rarely will one escape by accidentally locating the opening.

McILHENNY PEN TRAP

The principle employed in the waterlily-leaf trap can, of course, be considerably extended where it is possible to construct a permanent trap. This is only advisable where the general conditions, including water level and natural food supply are more or less constant in succeeding seasons. Figure 5 is a diagram of a large trap of this type, successfully operated by E. A. McIlhenny, of Avery Island, La. This trap, because of its size, is relatively expensive, but by its use Mr. McIlhenny has succeeded in capturing both river and sea ducks. When built expressly for the diving species it should be set in water about 3 feet deep.

The trap consists of a large outer unroofed chamber with two entrance funnels, which are approached by leads, and two roofed receiving chambers, entered from the outer chamber by long, unroofed funnels. When the trap is set, the funnel openings into the outer chamber should be about 2 feet wide, while those into the receiving chambers need not be more than 4 to 6 inches. The funnels into the outer chamber should be so constructed that they may be readily moved by pulling up the stakes at the apexes in order that one side may be swung back against the front of the trap while each of the other sides is employed to close the passage leading to a receiving cage. This should be the condition of the trap when not in operation, since it will permit the birds to have free access to the outer chamber without confining them. To set the trap it is only necessary to swing the wings of the funnels into position and to bait. With the receiving chambers roofed over, provision should be made for the entrance of the operator either at one side or at the back. (See the method described under the waterlily-leaf trap.)

NONAUTOMATIC TRAPS

SPRING-POLE TRAP

Where ducks may be baited on to the shore, a trap which throws a net is satisfactory. One of this kind has been used by Joseph Pulitzer at his stations at Bar Harbor, Me., and Cuivre Island, Mo. (figs. 6–8), and also by the writer at other points. Traps of this type may be strong enough to throw a net 40 or 50 feet square, but such large traps are difficult and dangerous for one man to operate alone. The one described here is for a net 20 feet square, which will be large enough for general use.

Two straight poles (oak, hickory, or ash preferred), about 40 feet long and 5 or 6 inches across the butts, are set firmly in the ground 60 to 75 feet apart at right angles to the shore line and back from it about 40 feet (fig. 7). The tips, which reach practically to the shore line, should be elevated 3 or 4 feet by resting the poles

about midway of their length on forked posts set firmly in the ground. These posts will also act as fulcrums when the poles are bent in

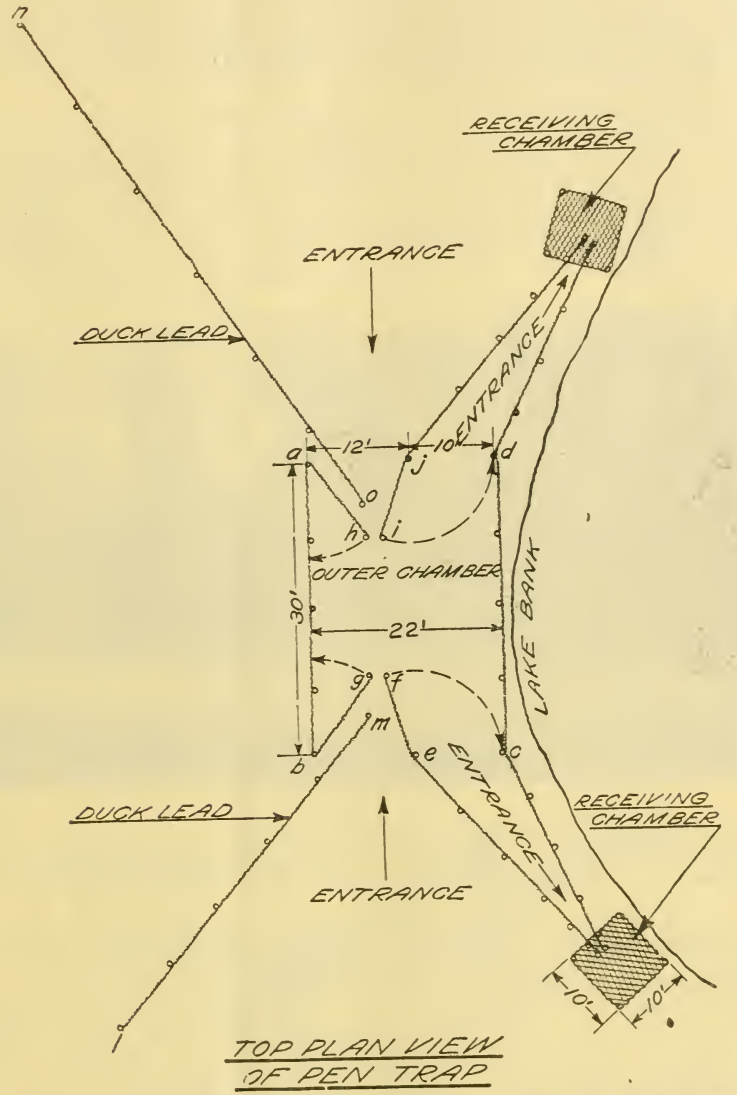

FIG. 5.—Details of McIlhenny pen trap. The large outer chamber (*a b c d*) is provided with large funnels (*a h i j* and *b g f e*), which are approached by leads (*l m* and *n o*). Funnel-shaped passages lead from the outer chamber to the receiving chambers, which are entered by funnels 4 to 6 inches wide. When the trap is not in operation entrance to the receiving chambers is blocked by moving the funnel wings (*i j* and *e f*) to the positions *d j* and *c e*, the opposite wings (*a h* and *b g*) being moved against the front of the outer chamber

setting the trap. The tips of the poles are connected with a piece of heavy iron wire called the "throw wire," about 75 feet long, midway of which one side of the net is attached.

The ground to be covered by the net should be thoroughly cleaned of all rubbish, rocks, and roots, as any held in the ground will be sure to catch and cause bad tears in the net.

With one side attached to the throw wire, the net should be spread out carefully and the opposite side secured to the ground. This is best done by weaving a light rod through the meshes and driving several forked stakes over it.

The next step is to install the triggers, two of which are needed. The accompanying illustrations (figs. 7 and 8) show how these are built. A board about 3 feet long and 5 or 6 inches wide is fitted at one end with a small "stop" block and at the other with a projecting cleat ("catch" block) to secure the upper end of the trigger pole. Broomsticks make excellent trigger poles, the rounded end resting against the "stop" blocks, and about 3 or 4 inches from the

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FIG. 6.—Spring-pole trap in use at the Cuivre Island Club near Firma, Mo., by L. V. Walton, under the direction of Joseph Pulitzer. This trap throws a net 40 feet square. The line of shelled corn used for bait may be seen near the center of the picture, and back of it is the net. Details of the trap are shown in Figure 7

other end are cut notches which will hold the throw wire when the trap is set. The back part of the trigger boards should be elevated about 6 inches and firmly staked down about a foot beyond the sides of the net and 8 or 10 inches in front of the line where it is fastened down. It is important that the catch blocks on the trigger boards both open in the same direction, which will be toward the blind concealing the operator. A piece of wire (baling wire will do) is attached to one trigger pole just above the notch and extended to the blind.

To set the trap the throw wire is pulled back and caught in the notch of one trigger pole, which is then put in place on the trigger board, *where it is tied fast with a piece of stout cord or wire.* This is for the protection of the operator until the other trigger is set and the tension on the spring poles equalized. When the throw wire has been similarly pulled back to the opposite trigger the pull of the spring poles may be adjusted by sliding the throw wire in either

direction until the tension is equalized, as shown by the fact that the trigger poles do not tend to slip from under the catch blocks. The net should then be pulled back and arranged in a long pile behind the wire, the operator taking care to see that it is not caught on any of the stakes holding the edge of the net to the ground. Bait should be scattered thinly over the area to be covered by the front of the net and more thickly to the rear. As a trap of even this size

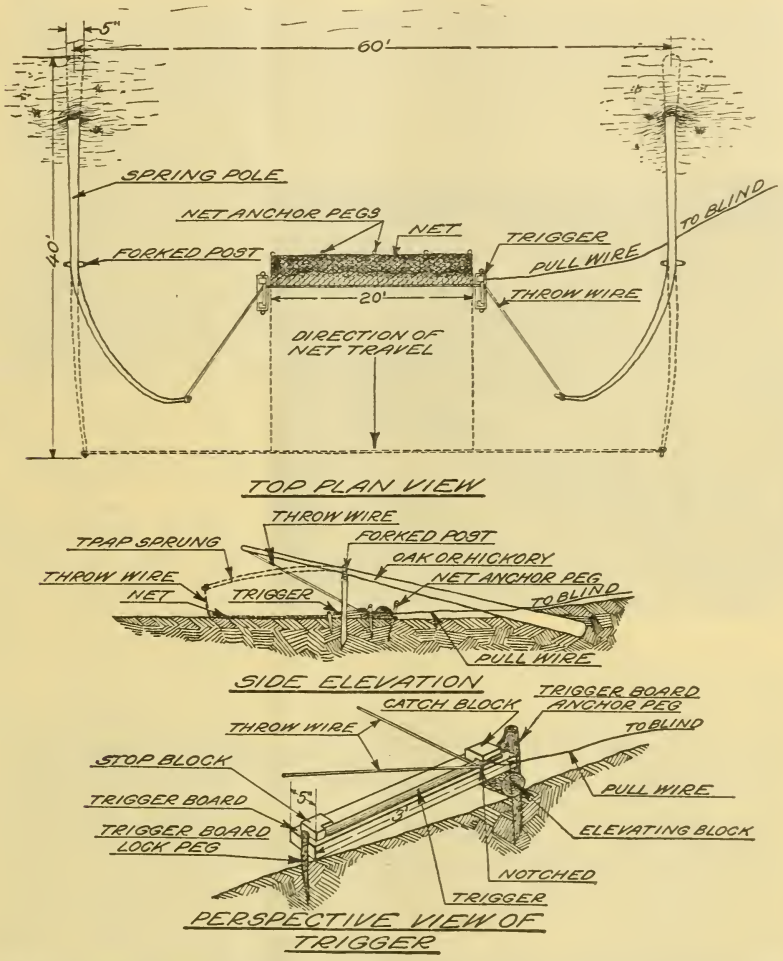

FIG. 7.—Details of spring-pole trap with net 20 feet square. Compare details of trigger with Figure 8

is capable of inflicting serious injury upon the operator, he should never work in front of the throw wire unless one trigger is tied fast.

The safety cord may now be removed from the trigger that was first set. A sharp jerk on the trigger wire will pull both trigger poles from under the catch blocks, and the poles, no longer held in place, then rise vertically against the stop blocks at the foot of the trigger boards. The throw wire slips off and shoots forward carry-

ing the net with it. With powerful poles the action is so quick that any birds feeding on the bait have no time to escape.

This trap may also be successfully used for land birds that feed in flocks on the ground, such as doves, blackbirds, horned larks, and sparrows. Figures 9 and 10 show one of these traps built by the writer to capture mourning doves for banding.

CAGE TRAP

The simplest form of nonautomatic trap is shown in Figures 11 and 12, which illustrate a trap built by the writer in January, 1922, at Ray Lake, near Oakville, Iowa, and which has since been operated successfully there by Allen Green. A lane about 6 feet wide was cleared through a growth of small birches, six or eight saplings being left in pairs to be used to form the superstructure. The tops of these were bent inward and lashed together, thus forming three or four inverted U's about 8 feet high and 6 feet wide at the bases. The length of the trap chamber is 20 feet. Four pieces of 5-foot poultry netting 20 feet long are laid side by side on the ground and their abutting edges laced together with copper wire, resulting in a "blanket" of wire netting 20 feet square. This is spread over the tied saplings and securely staked to the ground. The back and upper half of the front are closed with pieces of netting, and from the lower portion of the front a door is hung to swing out and up. The door is held open by a string passing over the trap chamber to a blind. Upon releasing the string the door drops and is held in place by a spring catch made from a forked branch and lashed to one side of the trap near the bottom. A pen in the back of the trap is used to confine a few live decoys.

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FIG. 8.—Trigger of spring-pole trap. The right-hand trigger is shown. The rounded end of trigger pole rests against the stop block, the opposite end being held in place by the catch block. The heavy throw wire is seen crossing the picture near the lower left-hand corner, passing through the notch in the trigger pole and continuing beyond where the net is attached. The pull wire, attached just above the notch, may be seen coming from the trigger pole to the lower center of the picture

PEN TRAP FOR DIVING DUCKS

As previously stated, the diving ducks present a field for interesting experimental work, and it is very important that a satisfactory automatic trap be developed. In its construction it is to be borne in mind that these ducks usually dive when alarmed, and a trap made from wire netting should have the meshes small enough to keep the birds from getting their heads and necks through them.

Unless this precaution is taken, there is a real danger of the birds drowning. Another point of which advantage may be taken is that deep-water ducks are unable to make the almost vertical rise from the water that characterizes the "take off" of the shoal-

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FIG. 9.—Spring-pole trap constructed by the writer at Thomasville, Ga., to capture mourning doves for banding. The poles, which threw a net 20 feet square, were of green bamboo, about 40 feet long, and measuring about 5 inches across their butts. The trap was set in an old cornfield

water species. Instead, they require a long start across the water to gain sufficient speed to lift them much above the surface. For this reason it is not necessary to have a top to the pen, and this has an added advantage, in that these birds, being reluctant to

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FIG. 10.—When properly constructed the spring-pole trap will throw the net so that it will lie squarely on the ground, as shown in this photograph

swim under anything, are more likely to enter an inclosure without a roof.

The most satisfactory trap for diving ducks that has been brought to the attention of the Biological Survey is the one used by A. A. Allen, of Cornell University. It consists of a three-sided pen 8 feet

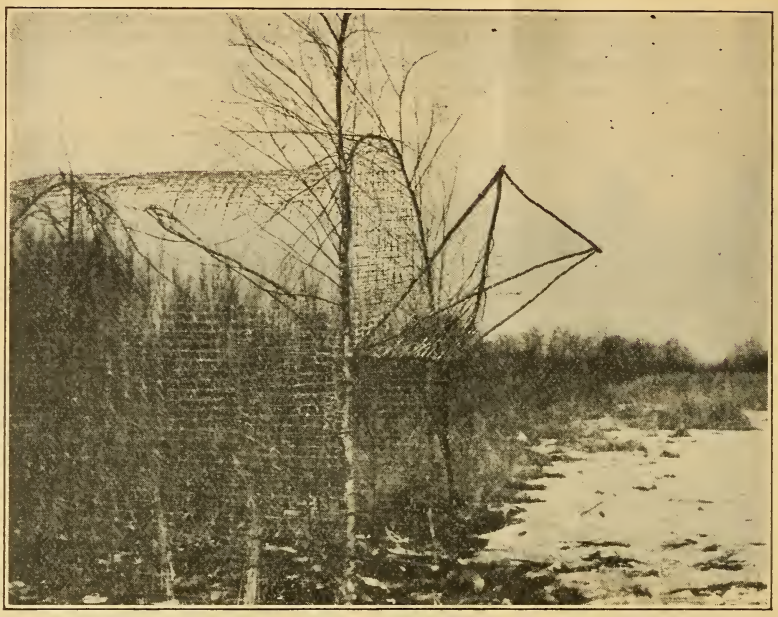

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FIG. 11.—Cage trap operated at Ray Lake near Oakville, Iowa, by Allen Green. The door is held open by a cord passing over the top of the trap chamber

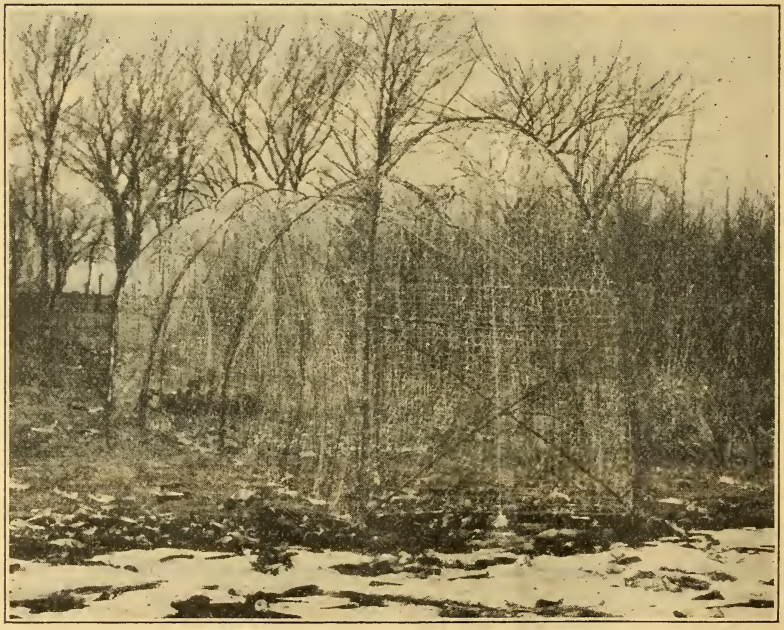

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FIG. 12.—Cage trap with door closed, showing decoys in back part of trap chamber

on a side, erected in water about 3 feet deep and in a natural feeding area, where by baiting a still greater concentration of birds may be brought about. The fourth side of the pen is closed by a door that swings upward from the bottom either as the operator pulls a wire extended to a blind or as a counterweight is released by him. There is little gained, however, by use of the weight, for, since this must be released by pulling a trigger cord, the operator may as well continue to pull and raise the door. The drawing shows a trap equipped with a pull wire. (Fig. 13.)

Four pieces of galvanized-iron inch pipe are used for the corner posts. Two of these should be about 8 feet long to allow about 2 feet to be driven firmly into the bottom, and the other two pieces

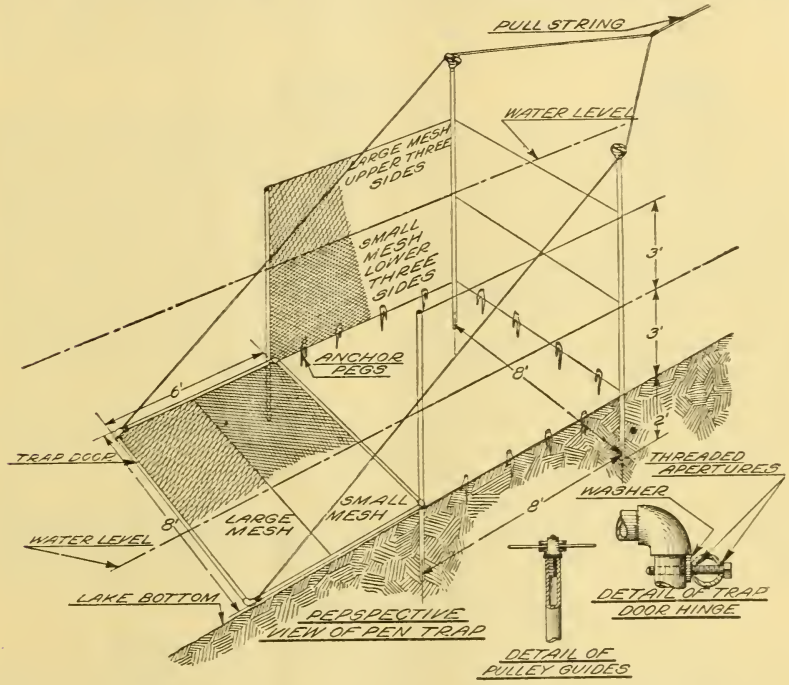

Fig. 13.—Details of pen trap for diving ducks

should be about 9 feet long. The 8-foot sections are used for the front posts and should have holes drilled about 25 inches from one end, corresponding holes being drilled through opposite sides of the door, as close as possible to the corners, in order that small bolts may be passed through to serve as hinges.

The door frame, 6 by 8 feet in size, is best made from four pieces of small galvanized-iron pipe, threaded so as to form the corners by use of elbow joints. Over this frame wire netting is stretched. The door should be attached to the 8-foot posts before they are driven into the bottom. By fastening the door upright between them it is possible to drive the posts so that they will be nearly perpendicular and parallel to each other as well as to the door when closed. They may be wired to the door until set in position. The

two 9-foot posts are then similarly set and will project 4 feet above the surface. A course of 3-foot rabbit wire (about 1-inch mesh) is fastened around the three open sides and secured firmly to the bottom with forked stakes. These stakes may easily be driven by means of a section of a tree trunk, 4 or 5 inches in diameter, used as a pile driver. The top of this course of netting should come just about to the surface of the water, and the walls of the inclosure may be completed by a course of ordinary 2-inch mesh, 3-foot poultry wire. When this is securely laced to the lower course with copper or galvanized-iron wire the trap pen is complete.

Two small pulleys should be fastened to the tops of the rear posts and threaded with strong cords carried to the upper corners of the door. A short distance beyond the pulleys these cords are united and continued as a single "pull string" to the blind. (Fig. 13.)

BAIT

Careful attention must always be given the question of proper bait. Duck trapping is apt to become particularly disheartening during the summer, because of the birds' actual indifference toward cereal baits when their natural, preferred food is usually abundant. Generally speaking, whole or cracked shelled corn is the best bait, but various small grains, as rice, wheat, barley, and cane seed, may be used to advantage, especially when trapping teals or other small species. Since it usually takes a week or two for wild ducks to become sufficiently accustomed to the superstructure of the trap to venture near the bait, a few live decoys may prove valuable in gaining their confidence.

Decoys which are not confined in a special compartment in the trap chamber may be given the freedom of an area 50 or 75 feet in diameter, surrounded with a fence of wire netting. The trap should be built close to the decoy pen, but not actually inside it. This method of keeping decoys in pens is used extensively at shooting clubs, and such places selected for shooting stands make the best trap sites.

HANDLING CAPTURED BIRDS

Most ducks are remarkably gentle when they realize that they are helpless, even during the height of the shooting season. When the operator approaches a cage trap, however, the captured birds will naturally plunge around in great confusion, frequently putting the entire structure of the trap to a severe strain. The careful operator will reduce this as much as possible by removing the birds rapidly. An assistant will materially expedite this part of the work, but his help is not absolutely necessary.

When the trap is set entirely in water it should be visited with a boat, which should be tied broadside to the trap at the point where the operator will enter. On entering the trap the operator closes both the opening through which he came and the mouth of the funnel. The birds are now caught by grasping them around the neck and are placed in burlap sacks in the boat. With the aid of an assistant remaining in the boat to handle the sacks the process of emptying the trap should take only a few minutes. Care should be

taken to keep the sacks as dry as possible, for if they become wet the body heat from the birds will produce steam and cause the otherwise waterproof plumage to become soaked and probably result in injury to the birds. Care should be taken also to avoid crowding in the sacks. Large coffee sacks will hold comfortably 10 or 12 birds of the size of mallards, but the smaller grain sacks only 6 or 8 birds each. As soon as each sack is filled it is securely tied and placed on the bottom of the boat in such a way that the birds will have as much room as possible.

As it will be almost impossible to keep the sacks entirely dry, the birds from each trap should be banded and released at once, preferable from the boat as it lies alongside the trap.

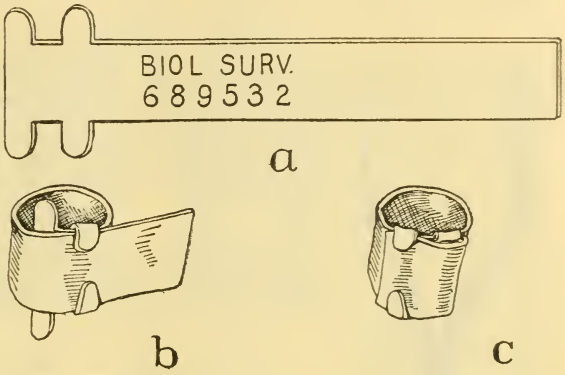

FIG. 14.—Flat-strip band, adjustable: (*a*) Outer side straightened out; (*b*) band partly locked; (*c*) band fully locked and excess length snipped off

In case part of the trap chamber is on dry land, the task of removing the birds is considerably simplified. To stop their struggling they should be driven gently to the back of the chamber, and either placed temporarily in sacks or the entire mass covered lightly with a piece of burlap or light tarpaulin.

BANDS

The bands used for waterfowl are the No. 6 ring band and the adjustable band, usually designated as size "X." These two bands have been made thick in order the better to withstand wear. They are also equipped with special locking devices. (See figs. 14 and 15.) Pliers are absolutely necessary, the best type being those shown in Figure 16, which have jaws 2 inches long and flat tips about an eighth of an inch across. Loom fixers' pliers ground down to this size are excellent. In addition a pair of diagonal wire cutters or stout-bladed scissors will be needed to trim off the excess length from the adjustable bands.

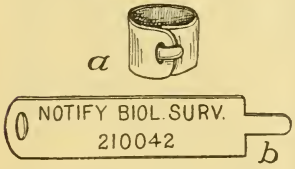

FIG. 15.—No. 6 lock bands: (*a*) Closed; (*b*) outer side, straightened out. Suitable for teals and other ducks with small tarsi

The No. 6 band is suitable for teals and other birds with rather small tarsi. In closing them care should be taken to see that the locking nib is all the way through the slot before it is bent back. Figure 15 shows one of these bands flattened out, and also one closed and properly locked.

The adjustable band is issued flat and may be quickly curled with the pliers and then opened to admit the bird's leg. If the traps are yielding only two or three kinds of ducks, much time may be saved by

removing excess lengths before trapping. For birds such as mallards, black ducks, and pintails about an inch may be clipped off. The bands should then be arranged in proper numerical order in racks such as the one shown in Figure 17. The vertical U-shaped holders are fashioned from galvanized-iron wire about the size of baling wire, one being made to stand about half an inch higher than the other. The legs of the higher U should pass between the locking nibs of the bands. These are held in place by a stout elastic band, which is removed when the operator begins banding. By lifting one side of the top band it is easily taken from the rack. Racks made to hold 100 bands are the most convenient, but when extensive operations are in progress, and a single trap yields a hundred or more birds, it will be advisable to be supplied with three or four filled racks.

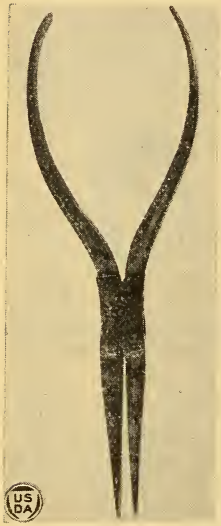

FIG. 16.—Pliers used in attaching bands to waterfowl. Jaws should be about 2 inches long and about an eighth of an inch across the tips

RECORDS

Every operator should attend carefully to the proper handling of banding records while at the traps. The most simple method is to carry a notebook in which the band numbers have already been entered, and to use several racks for adjustable bands. Make all notebook entries with lead pencil, because the notebook is often too wet for the use of ink. By sorting and sacking the captured birds according to sex or species it is possible to use ditto marks and thus save much time in recording data. By this method, and by the use of racks with the bands arranged in numerical order corresponding to the entries in the notebook, it is necessary to record only the first male or female of each species, and to band uninterruptedly all of that sex, and then to note the next number with the full data.

As soon as the operator returns from the traps the data should be transferred in ink for permanent record. If operations are carried on during the shooting season, the records should be forwarded to the Biological Survey every day, but in any case they should not be long retained at the station. Since large numbers of banded ducks are killed and reported to the central office, it is very important that the files always be as up to date as possible. Figure 18 shows a card record properly made.

When banded birds are captured and reported to the bureau, the person reporting the return is advised when and where the bird was banded, and the operator is informed when and where the bird was recovered.

CAUTIONS

INJURIES TO BIRDS

Cage traps made of 2-inch mesh poultry wire throughout may cause injuries to the captured birds left in confinement for any great length of time. In a long trap, where there is room for the birds to

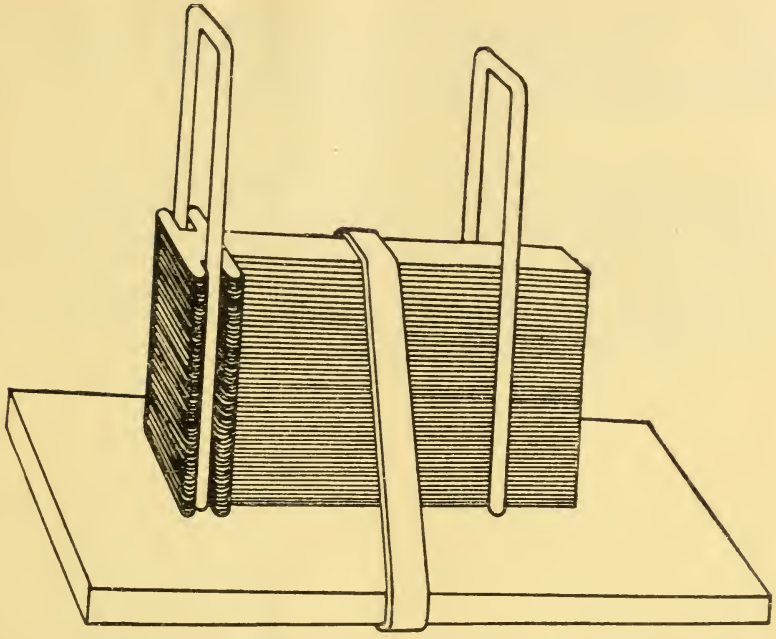

FIG. 17.—Holder for flat adjustable bands. The inverted U that passes between the locking nibs should be about a half inch higher than the other

acquire momentum in flight, some injuries may result, although the birds will generally put their heads and necks through the netting and receive the force of the impact on the thick feathers at the base of the neck. More serious injury is inflicted when a bird forces a wing through the meshes of the wire netting and in its struggles

RECORD OF BIRD BANDED

No. 230252 SPECIES Mallard ♂

WHERE BANDED Sanganois Club, Browning, Ill.

DATE Nov. 20, 1922 BANDED BY John Smith

REMARKS

RECORD OF RECOVERY			REMARKS
DATE	LOCALITY	BY	
11/24/22	Repeat		

Form B1-137

FIG. 18.—Record card properly filled out. The bird reported upon was recaptured in the same trap a short time (four days) after it was banded. Such recaptures are called "repeats" and should be entered under "Record of recovery"

severely cuts the web, or patagium, or damages the important flight feathers. These accidents may be easily avoided by covering the inside of any cage trap with a piece of 2-foot rabbit or pigeon wire, placed half above and half below the water line.

MUD

Traps should be placed whenever possible so that they will have firm, hard bottoms. If this can not be done they should be placed entirely in water no less than 8 or 10 inches deep. Traps should never be placed in shallow water where there is a soft muddy bottom, for the captured birds will soon work the mud into a semiliquid condition, saturating their plumage and causing serious irritation or infection of the eyes and possibly death.

ORGANIZATION OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

December 24, 1925

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